Daily Diary Report by Bid Item

Contract No.: **04-0120F4**
Diary #: **510** **Const Calendar Day:** 898 **Date:** **23-Feb-2012** **Thursday**
Inspector Name: **Bruce, Matt** **Title:** **Transportation Engineer**
Inspection Type: Intermittent
Shift Hours: 05:00 am 03:30 pm **Break:** 00:30 **Over Time:** 02:00
Federal ID:
Location:
Reviewer: **Schmitt, Alex** **Approved Date:** **Status:** Submit

04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge

Weather

Temperature **7 AM** 40 - 50 **12 PM** 50 - 60 **4PM** 60 - 70
Precipitation 0.00" **Condition** Partly Cloudy

Working Day ☐ If no, explain:

Diary: Dispute ☐

Work description.

- John Lyons, Phil Latasa, Sami Dauok, Alex Schmitt and myself checked the out to out distance for the cable strands today as Sami's and my measurements are tabulated below. Sami and I were responsible for both the north/south mainspans and north west-loop today. Similarly John and Phil were responsible for checking the north/south sidespans and the south west-loop. Sami assisted me with the measurements and tabulating the data as I took all of the measurements unless otherwise noted. I used the Maletic gauge (#1) to take the out to out measurements of the cable strands.

All measurements by both crews were reported to Alex who was stationed in the Caltrans Connex recording and analyzing the data. When all of the measurements were completed, Alex was responsible for reviewing the measurements with ABF engineer Zach Lauria. See Alex's diary for more details related to the acceptance or rejection of cable strand sag adjustment.

Ambient temperatures were taken with the red temperature gauge. Wind speeds were obtained from weather.com at the time of the measurements. The steel temperature measurements were taken with the digital thermometer placed on the outer cable strand wires.

The official sunrise time per weather.com for San Francisco today was at 6:50am. The following measurements were taken of the relative sag from cable strand number 1 at the given times below:

// North Mainspan //
Time = 5:06am
Ambient Temperature = 52.0F
Condition = Fair
Wind = NW @ 13mph
ABF Surveyor(s) = Terry Denis and Mike Bonidici
Caltrans Engineer(s) = Matt Bruce and Sami Dauok

Cable Strand	Steel Temperature (F)	O-O (#1) CT (mm)	Theor (mm)	CT Delta (mm)
1	54.4	Baseline or Zero	75	0
44	53.2	516, 515 - Ave = 516	518	- 2
47	52.6	258, 262 - Ave = 260	243	+ 17
48	52.6	453, 453 - Ave = 453	299	+ 154
49	52.7	573	356	+ 217
50	53.4	668	413	+ 255
51	52.6	594	470	+ 124
52	52.2	640	527	+ 113

53	51.9	634	584	+ 50

Comments: All cable strands were considered to be free-hanging at the time of measurement on the north mainspan. I took all of the measurements while Sami assisted me with setting up the targets, being level, normal to cable, etc. I gave my numbers for this span to ABF surveyor Terry Denis. They had not measured these cable strands at this location yet. I told Terry to call me if any of the measurements are off for us or them to remeasure keeping in mind the 7:00am deadline.

// South Mainspan //
Time = 5:44am
Ambient Temperature = 51.1F
Condition = Fair
Wind = NW @ 13mph
ABF Surveyor(s) = None at this time
Caltrans Engineer(s) = Matt Bruce and Sami Dauok

Cable Strand	Steel Temperature (F)	O-O (#1) CT / ABF (mm)	Theor (mm)	CT Delta (mm)
1	52.9	Baseline or Zero	76	0
45	52.1	592, 593 - Ave = 593 / 597	583	+ 10
47	51.6	260, 263 - Ave = 262 / 260	239	+ 23
48	52.8	310, 308 - Ave = 309 / 311	298	+ 11
49	51.4	453, 453 - Ave = 453 / 453	356	+ 97
50	52.1	408, 413 - Ave = 411 / 413	415	- 4
51	51.7	552, 552 - Ave = 552 / 557	474	+ 78
52	52.0	616, 616 - Ave = 616 / N/A	532	+ 84
53	52.1	668, 668 - Ave = 668 / N/A	591	+ 77

Comments: Cable strand numbers 54 and 55 were floated overhead. Cable strand numbers 50, and 51 were bearing on the strands below. Yesterday ABF placed cable strand former flat plates at this location, see photos below for more details and comments. The strand former flat plates seemed to make the bundle thus far more fixed and possibly not 100% free-hanging. Therefore cable strands numbers 45 and 52 were marked on the daily cable strand adjustment sheet as bearing on the strand below. All other cable strands were considered to be free-hanging at the time of measurement on the south mainspan. I took all of the measurements while Sami assisted me with setting up the targets, being level, normal to cable, etc.

- Measurements on the south mainspan were completed at 6:16am as me and Sami proceeded to go take measurements at the north west-loop.

// North West-Loop //
Time = 6:32am
Ambient Temperature = 51.1F
Condition = Fair
Wind = NNW @ 9mph
ABF Engineer(s) or Surveyor(s) = None at this time
Caltrans Engineer(s) = Matt Bruce and Sami Dauok

Cable Strand	Steel Temperature (F)	O-O (#1Y) CT (mm)	Theor (mm)	CT Delta (mm)
1	53.6	Baseline or Zero	80	0
51	52.8	639 (-126) = 513	505	+ 8
52	52.7	739 (-126) = 613	599	+ 14
53	52.7	814 (-126) = 688	693	- 5
54	52.4	935 (-126) = 809	788	+ 21
55	52.3	141 (-126) = 15	9	+ 6

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Job Name: 04-0120F4 **Inspector Name** Bruce, Matt **Diary #:** 510 **Date:** 23-Feb-2012 Thursday

Comments: All cable strands were considered to be free-hanging at the time of measurement on the north west-loop. Sami took all of the measurements at this location. I recorded the data while the measurements were being taken.The ( ) denotes the fixed timber block (by ABF) to cable strand number 1 dimension in millimeters.

- All of the mainspan measurements that I took today were conveyed to Alex by 6:20am. The numbers for the west-loop were reported to Alex just prior to 7:00am.

- Attended the weekly SAS Safety Tailgate and staff meeting at 8:00am.

- Completed compiling all my measurements taken yesterday and today on the daily cable strand sag adjustment sheets.

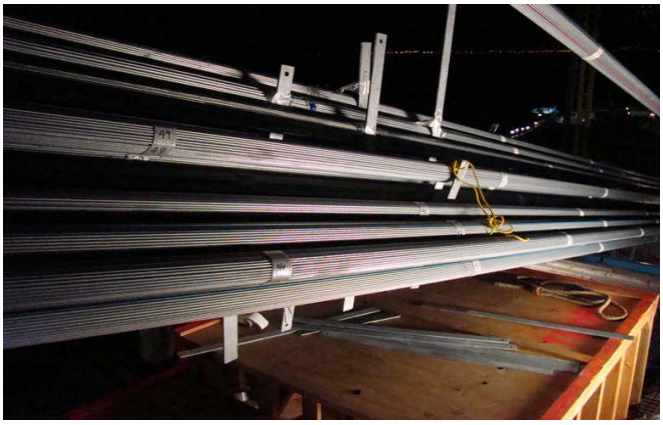
- Resumed composing outstanding diaries that need to be turned in for the month of January.

- Continued to discuss pertinent issues related to the Hinge K Tie-Down with Jason Wilcox as he is the lead worker on this portion of the SAS/YBITS structure.

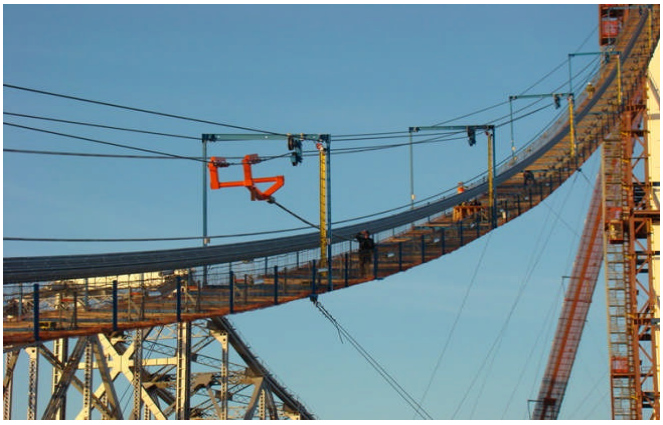
Attachment

The north west loop cross-section of cable strands seen standing at the W2W west deviation saddle looking south.

Cable strand former flat plates placed in between the strands at the midpoint on the south mainspan looking west towards the tower.



Cable strand former flat plates placed in between the strands at the midpoint on the south mainspan looking east towards the Skyway.



ABF resumed hauling cable strand number 56 down the south mainspan tramway/catwalk at the start of shift.